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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/806,109

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Masatsugu Masuda

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EXAMINER

LOUIE, WAI SING

ART UNIT

PAPER NUMBER

2814

NOTIFICATION DATE

DELIVERY MODE

01/10/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.		Applicant(s)	
	10/806,109		MASUDA ET AL.	
	Examiner		Art Unit	
	Wai-Sing Louie		2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10, 11, 13, 24, 25, 27, 28 and 32-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 10, 24, 25, 28, 32, 33 and 35 is/are rejected.
- 7) ☒ Claim(s) 5-8, 11, 13, 27 and 34 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/27/07, 10/9/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The argument in the pre-appeal brief is persuasive and the finality of previous rejection is withdrawn. A new ground of rejection is as below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 10, 24, 28, 33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (US Pub. 2002/0105795) in view of Lu et al. (US Pub. 2003/0117794).

With regard to claims 1, 3, 24, 33, and 35, Huang discloses a backlight keyboard (§ [0020] et seq. and fig. 1) comprising:

- At least one light source 131 (fig. 2), in which light of the light source 131 is guided and emitted from an operation member 111 having translucent properties via an optical light guide 14 (§ [0023] and fig. 2);
- The at least one light source 131 is detachable from the region of the light guide 14 that contains phosphor (fig. 2);
- Huang does not disclose a region that contains phosphor in the light guide 14, which is separated from the light source 131. However, Lu et al. disclose

backlight module having a light guide 311 containing phosphor in a path through which the light of the light source 310 is guided (Lu paragraph [0022]), which is in a vicinity of the light source 310 and is separated from the light source 310 (Lu fig. 3). Lu et al. teach the phosphor converts the light into high brightness uniform desired spectrum white light (Lu paragraph 0012]). Therefore, it would have been obvious to one of ordinary skill in the art to modify Pasco's device with the teaching of Lu et al. to provide phosphor in a path through which the light of the light source 310 is guided in order to produce high brightness uniform desired spectrum white light.

With regard to claim 2, Huang discloses the operation member 111 is a key cap (¶ [0001] and [0022]).

With regard to claim 4, Huang modified by Lu et al. disclose the phosphor is constituted by a plurality of types of phosphors that emit light with different colors from each other (Lu ¶ [0021]).

With regard to claims 10 and 28, Huang discloses the electronic equipment is a keyboard (¶ [0001]), which can be used in any electronic equipment that required a keyboard including a mobile phone. Therefore, it would have been obvious to one of ordinary skill in the art to include the keyboard 11 in a mobile phone.

Claims 10 and 28 are written in a “product by process” claim language. A “product by process” claim is direct to the product *per se*, no matter how actually made. See In re Thorpe et al., 227 USPQ 964 (CAFC, 1985) and the related case law cited therein which makes it clear that it is the final product *per se* which must be determined in a “product by process” claim, and not

the patentability of the process, and that, as here, an old or obvious product produced by a new method is not patentable as a product, whether claimed in “product by process” claims or not. As stated in Thorpe,

even though product by process claims are limited by and defined by the process, determination of patentability is based on the product itself. *In re Brown*, 459 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969); *Buono v. Yankee Maid Dress Corp.*, 77 F.2d 274, 279, 26 USPQ 57, 61 (2d. Cir. 1935).

Note that applicant has burden of proof in such cases as the above case law makes clear.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (US Pub. 2002/0105795) modified by Lu et al. (US Pub. 2003/0117794) as applied to claims 1 and 24 above, and further in view of Physical of Semiconductor Device by S.M. Sze, second edition (page 683 fig. 1).

With regard to claim 25, Pasco modified by Lu et al. disclose the light source 310 emits UV or blue light (Lu paragraph [0022]), but do not disclose the wavelength is in a range from 400 to 430 nm. However, Sze discloses the near UV to blue light is in a range of 390 to 455 nm. Therefore, it would have been obvious the light source in Lu is in this range.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (US Pub. 2002/0105795) modified by Lu et al. (US Pub. 2003/0117794) as applied to claims 1 and 24 above, and further in view of Pasco (US 5,803,240).

With regard to claim 32, Huang does not disclose the light guide contains phosphor substantially surrounds the light source. However, Pasco discloses the light source 6 is into the

plate-like light guide 1 (Pasco 3, lines 13-31). Pasco teaches the light is introduced into the assembly from distributed light sources uniformly (Pasco col. 3, lines 32-36). Therefore, it would have been obvious at the time the invention was made to modify Huang's device with the teaching of Lu et al. and Pasco to have the light guide substantially surrounds the light source in order to have a uniform distribution of light.

Allowable Subject Matter

Claims 5-8, 11, 13, 27, and 34 are objected to as dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

The prior art of record does not disclose or suggest either in singularly or in combination the following limitations and other elements in the claims:

References Pasco; LaPointe et al. ; Lu et al. ; and Huang do not disclose:

- A plurality of regions that contains phosphor, where the plurality of regions that contains phosphor are contained in each of the respective plurality of keytops.

Therefore, the above references do not disclose the claimed invention of present application and claims 5-8, 11, 13, 27, and 34 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wai-Sing Louie whose telephone number is 571-272-1709. The examiner can normally be reached on 7:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 571-272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Wai-Sing Louie/
Primary Examiner, Art Unit 2814

Wsl
January 5, 2008.